

## **DEPARTMENT OF TRANSPORTATION**

### **Federal Aviation Administration**

#### **14 CFR Part 39**

**[Docket No. 2000-NM-367-AD; Amendment 39-12821; AD 2002-14-21]**

**RIN 2120-AA64**

### **Airworthiness Directives; Boeing Model 737-600, -700, and -800 Series Airplanes**

**AGENCY:** Federal Aviation Administration, DOT.

**ACTION:** Final rule.

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**SUMMARY:** This amendment supersedes an existing airworthiness directive (AD), applicable to certain Boeing Model 737-600, -700, and -800 series airplanes, that currently requires repetitive inspections to detect discrepancies of the quick-disconnect coupling on the fuel hose located at the fan case firewall; corrective action, if necessary; and installation of a clamp shell on the coupling to prevent separation of the coupling halves. This amendment limits the applicability of the existing requirements, clarifies certain existing requirements, and requires removal of the clamp shell installed previously and replacement of the existing quick-disconnect fuel supply hose, coupling, and strut fitting with new, fixed-B-nut-type parts. Such replacement ends the requirement for repetitive inspections. The actions specified by this AD are intended to prevent major fuel leakage due to excessive wear of the quick-disconnect coupling on the fuel hose, fire in the engine nacelle, and consequent loss of thrust from the affected engine, which could result in reduced controllability of the airplane. This action is intended to address the identified unsafe condition.

**DATES:** Effective August 21, 2002.

The incorporation by reference of Boeing Alert Service Bulletin 737-73A1011, Revision 2, dated July 13, 2000, as listed in the regulations, is approved by the Director of the Federal Register as of August 21, 2002.

The incorporation by reference of Boeing Alert Service Bulletin 737-73A1011, dated November 25, 1998, as listed in the regulations, was approved previously by the Director of the Federal Register as of February 19, 1999 (64 FR 5590, February 4, 1999).

**ADDRESSES:** The service information referenced in this AD may be obtained from Boeing Commercial Airplane Group, P.O. Box 3707, Seattle, Washington 98124-2207. This information may be examined at the Federal Aviation Administration (FAA), Transport Airplane Directorate, Rules Docket, 1601 Lind Avenue, SW., Renton, Washington; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

**FOR FURTHER INFORMATION CONTACT:** Douglas Pegors, Aerospace Engineer, Propulsion Branch, ANM-140S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue, SW., Renton, Washington 98055-4056; telephone (425) 227-1446; fax (425) 227-1181.

**SUPPLEMENTARY INFORMATION:** A proposal to amend part 39 of the Federal Aviation Regulations (14 CFR part 39) by superseding AD 99-03-08, amendment 39-11022 (64 FR 5590, February 4, 1999), which is applicable to certain Boeing Model 737-600, -700, and -800 series airplanes, was published in the Federal Register on April 4, 2002 (67 FR 16064). That action proposed to continue to require repetitive inspections to detect discrepancies of the quick-disconnect coupling on the fuel hose located at the fan case firewall; corrective action, if necessary; and installation of a clamp shell on the coupling to prevent separation of the coupling halves. That action also proposed to limit the applicability of the existing requirements, clarify certain existing requirements, and require removal of the clamp shell installed previously and replacement of the existing quick-disconnect fuel supply hose, coupling, and strut fitting with new, fixed-B-nut-type parts. Such replacement would end the requirement for repetitive inspections.

## **Comments**

Interested persons have been afforded an opportunity to participate in the making of this amendment. No comments were submitted in response to the proposal or the FAA's determination of the cost to the public.

## **Explanation of Change Made to Proposal**

For clarification, the FAA has revised the definition of a "general visual inspection" in this final rule.

## **Conclusion**

The FAA has determined that air safety and the public interest require the adoption of the rule with the change previously described. The FAA has determined that this change will neither increase the economic burden on any operator nor increase the scope of the AD.

## **Cost Impact**

There are approximately 560 airplanes of the affected design in the worldwide fleet. The FAA estimates that 271 airplanes of U.S. registry will be affected by this AD.

The inspection that is currently required by AD 99-03-08 takes approximately 1 work hour per airplane to accomplish, at an average labor rate of \$60 per work hour. Based on these figures, the cost impact of the currently required inspection on U.S. operators is estimated to be \$16,260, or \$60 per airplane, per inspection cycle.

For airplanes on which it has not already been accomplished during production, the installation of a clamp shell required by AD 99-03-08 takes approximately 2 work hours per airplane to accomplish, at an average labor rate of \$60 per work hour. Required parts are provided by the manufacturer at no cost to the operators. Based on these figures, the cost impact of the currently required installation is estimated to be \$120 per airplane.

The new replacement that is required in this AD action will take approximately 4 work hours per airplane to accomplish, at an average labor rate of \$60 per work hour. Required parts will be provided by the manufacturer at no cost to the operators. Based on these figures, the cost impact of the replacement on U.S. operators is estimated to be \$65,040, or \$240 per airplane.

The cost impact figures discussed above are based on assumptions that no operator has yet accomplished any of the requirements of this AD action, and that no operator would accomplish those actions in the future if this AD were not adopted. The cost impact figures discussed in AD rulemaking actions represent only the time necessary to perform the specific actions actually required by the AD. These figures typically do not include incidental costs, such as the time required to gain access and close up, planning time, or time necessitated by other administrative actions.

## **Regulatory Impact**

The regulations adopted herein will not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government. Therefore, it is determined that this final rule does not have federalism implications under Executive Order 13132.

For the reasons discussed above, I certify that this action (1) is not a "significant regulatory action" under Executive Order 12866; (2) is not a "significant rule" under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979); and (3) will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act. A final evaluation has been prepared for this action and it is contained in the Rules Docket. A copy of it may be obtained from the Rules Docket at the location provided under the caption ADDRESSES.

## **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

## **Adoption of the Amendment**

Accordingly, pursuant to the authority delegated to me by the Administrator, the Federal Aviation Administration amends part 39 of the Federal Aviation Regulations (14 CFR part 39) as follows:

## **PART 39—AIRWORTHINESS DIRECTIVES**

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

### **Sec. 39.13 [Amended]**

2. Section 39.13 is amended by removing amendment 39-11022 (64 FR 5590, February 4, 1999), and by adding a new airworthiness directive (AD), amendment 39-12821, to read as follows:

# AIRWORTHINESS DIRECTIVE

Aircraft Certification Service  
Washington, DC



U.S. Department  
of Transportation  
**Federal Aviation  
Administration**

*We post ADs on the internet at "[www.airweb.faa.gov/rgl](http://www.airweb.faa.gov/rgl)"*

The following Airworthiness Directive issued by the Federal Aviation Administration in accordance with the provisions of Title 14 of the Code of Federal Regulations (14 CFR) part 39, applies to an aircraft model of which our records indicate you may be the registered owner. Airworthiness Directives affect aviation safety and are regulations which require immediate attention. You are cautioned that no person may operate an aircraft to which an Airworthiness Directive applies, except in accordance with the requirements of the Airworthiness Directive (reference 14 CFR part 39, subpart 39.3).

**2002-14-21 Boeing:** Amendment 39-12821. Docket 2000-NM-367-AD. Supersedes AD 99-03-08, Amendment 39-11022.

**Applicability:** Model 737-600, -700, and -800 series airplanes, listed in Group I or II of Boeing Alert Service Bulletin 737-73A1011, Revision 2, dated July 13, 2000; certificated in any category.

**Note 1:** This AD applies to Model 737-700 series airplanes in an increased-gross-weight configuration, as listed in the service bulletin referred to in the applicability statement of this AD.

**Note 2:** This AD applies to each airplane identified in the preceding applicability provision, regardless of whether it has been modified, altered, or repaired in the area subject to the requirements of this AD. For airplanes that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (f)(1) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

**Compliance:** Required as indicated, unless accomplished previously.

To prevent major fuel leakage due to excessive wear of the quick-disconnect coupling on the fuel hose, fire in the engine nacelle, and consequent loss of thrust from the affected engine, which could result in reduced controllability of the airplane, accomplish the following:

## **Restatement of Requirements of AD 99-03-08**

### *Repetitive Inspections and Corrective Actions*

(a) For airplanes listed in Group I of Boeing Alert Service Bulletin 737-73A1011, Revision 2, dated July 13, 2000: Within 7 days after February 19, 1999 (the effective date of AD 99-03-08, amendment 39-11022), perform a general visual inspection to detect discrepancies (i.e., fuel leakage, wear of the lock teeth, or missing lock pins on the coupling nut) of the quick-disconnect coupling on the fuel hose located at the fan case firewall, in accordance with Boeing Alert Service Bulletin 737-73A1011, dated November 25, 1998; or Revision 2, dated July 13, 2000.

(1) If no discrepancy is detected, repeat the inspection thereafter at intervals not to exceed 500 flight hours, until the installation required by paragraph (b) of this AD is accomplished.

(2) If any discrepancy is detected, prior to further flight, perform follow-on corrective actions, as applicable, in accordance with TABLE 1. of the Accomplishment Instructions of the alert service bulletin, and repeat the inspection thereafter at the time specified in TABLE 1. of the Accomplishment Instructions of the alert service bulletin.

## *Installation of Clamp Shell and Repetitive Inspections*

(b) For airplanes listed in Group I of Boeing Alert Service Bulletin 737-73A1011, Revision 2, dated July 13, 2000: Within 30 days after February 19, 1999, install an Aeroquip Clamp Shell, having part number (P/N) AE20074-165, on the quick-disconnect coupling on the fuel hose, which is located at the fan case firewall, in accordance with Boeing Alert Service Bulletin 737-73A1011, dated November 25, 1998; or Revision 2, dated July 13, 2000. Accomplishment of such installation terminates the repetitive inspection requirements of paragraphs (a)(1) and (a)(2) of this AD.

### **New Requirements of This AD**

**Note 3:** For the purposes of this AD, a general visual inspection is defined as: "A visual examination of an interior or exterior area, installation, or assembly to detect obvious damage, failure, or irregularity. This level of inspection is made from within touching distance unless otherwise specified. A mirror may be necessary to enhance visual access to all exposed surfaces in the inspection area. This level of inspection is made under normally available lighting conditions such as daylight, hangar lighting, flashlight, or droplight and may require removal or opening of access panels or doors. Stands, ladders, or platforms may be required to gain proximity to the area being checked."

**Note 4:** Accomplishment of the requirements of paragraphs (a), (b), and (c) of this AD according to Boeing Alert Service Bulletin 737-73A1011, Revision 1, dated April 15, 1999, is acceptable for compliance with those paragraphs.

### **Repetitive Inspections**

(c) For airplanes listed in Groups I and II of Boeing Alert Service Bulletin 737-73A1011, Revision 2, dated July 13, 2000: Within 1,000 flight hours after installation of the clamp shell either per paragraph (b) of this AD (for Group I airplanes) or during production (for Group II airplanes), perform the inspection specified in paragraph (a) of this AD.

**Note 5:** The repetitive inspections required by paragraph (c) of this AD were previously required by paragraph (b) of AD 99-03-08.

(1) If no discrepancy is detected, repeat the inspection thereafter at intervals not to exceed 1,000 flight hours.

(2) If any discrepancy is detected, prior to further flight, perform follow-on corrective actions, as applicable, in accordance with Figures 1 and 3 of the Accomplishment Instructions of the alert service bulletin, as applicable, and repeat the inspection thereafter at the time specified in TABLE 1. of the Accomplishment Instructions of the alert service bulletin.

### **Replacement of Existing Parts**

(d) For airplanes listed in Groups I and II of Boeing Alert Service Bulletin 737-73A1011, Revision 2, dated July 13, 2000: Within 3 years after the effective date of this AD, remove the clamp shell installed per paragraph (b) of this AD (for Group I airplanes) or during production (for Group II airplanes), and replace the existing quick-disconnect fuel hose, coupling, and strut fitting with new, fixed-B-nut-type parts, in accordance with Boeing Alert Service Bulletin 737-73A1011, Revision 2, dated July 13, 2000. Such replacement terminates the repetitive inspections required by paragraphs (a)(1), (a)(2), and (c) of this AD, as applicable.

## **Spares**

(e) After the effective date of this AD, no one may install a quick-disconnect fuel supply hose, coupling, or strut fitting with a part number listed in the "Existing Part Number" column of the table under paragraph 2.E. of Boeing Alert Service Bulletin 737-73A1011, Revision 2, dated July 13, 2000, on any airplane.

## **Alternative Methods of Compliance**

(f)(1) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, Seattle Aircraft Certification Office (ACO), FAA. Operators shall submit their requests through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, Seattle ACO.

(2) Alternative methods of compliance, approved previously in accordance with AD 99-03-08, amendment 39-11022, are approved as alternative methods of compliance with paragraphs (a), (b), and (c) of this AD.

**Note 6:** Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the Seattle ACO.

## **Special Flight Permits**

(g) Special flight permits may be issued in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the airplane to a location where the requirements of this AD can be accomplished.

## **Incorporation by Reference**

(h) The actions shall be done in accordance with Boeing Alert Service Bulletin 737-73A1011, dated November 25, 1998; or Boeing Alert Service Bulletin 737-73A1011, Revision 2, dated July 13, 2000.

(1) The incorporation by reference of Boeing Alert Service Bulletin 737-73A1011, Revision 2, dated July 13, 2000, is approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51.

(2) The incorporation by reference of Boeing Alert Service Bulletin 737-73A1011, dated November 25, 1998, was approved previously by the Director of the Federal Register as of February 19, 1999 (64 FR 5590, February 4, 1999).

(3) Copies may be obtained from Boeing Commercial Airplane Group, P.O. Box 3707, Seattle, Washington 98124-2207. Copies may be inspected at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

## **Effective Date**

(i) This amendment becomes effective on August 21, 2002.  
Issued in Renton, Washington, on July 8, 2002.

Vi Lipski,  
Manager, Transport Airplane Directorate, Aircraft Certification Service.  
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